

WHAT IS CLAIMED IS:

1    1.    In a test system for testing an integrated circuit device, a software program that receives  
2    instructions from a user and issues commands to the test system for testing the integrated circuit  
3    device in accordance with the user instructions, the software program including:

4                computer program code for receiving an instruction from the user;  
5                computer program code for generating a generic command based upon the user  
6    instruction, the generic command being independent of the test system that is being used to test  
7    the integrated circuit device;

8                computer program code for translating the generic command into a test system specific  
9    command;

10              computer program code for providing the test system specific command to the test  
11   system; and

12              computer program code for receiving a test result from the test system, the test result  
13   being provided in response to the test system specific command and indicative of a result of a  
14   test performed on the integrated circuit device.

1    2.    The software program of claim 1 wherein the computer program code for receiving an  
2    instruction from the user and the computer program code for generating a generic command are  
3    located in a high-level program module, the high-level program module being usable with a  
4    plurality of different test systems without modification.

1    3.    The software program of claim 2 wherein the computer program code for translating the  
2    generic command into a test system specific command is located in an interface software module  
3    and wherein the computer program code for providing the test system specific command to the

4 test system and the computer program code for receiving a test result are located in a low-level  
5 program module, wherein the interface software module and the low-level software module are  
6 unique to a specific test system.

1 4. The software program of claim 3 wherein all communications between the high-level  
2 program module and the low-level program module are routed through the interface software  
3 module.

1 5. The software program of claim 3 wherein the interface software module is provided such  
2 that high-level code from the high-level program module is converted to one or more low-level  
3 codes that correspond to the functionality of the high-level code, and one or more low-level  
4 codes from the low-level program module are converted to one or more high-level codes that  
5 correspond to the functionality of the low-level code.

1 6. The software program of claim 1 wherein the computer program code for translating the  
2 generic command into a test system specific command is located in an interface software module  
3 and wherein the computer program code for providing the test system specific command to the  
4 test system and the computer program code for receiving a test result are located in a low-level  
5 software module, wherein the interface software module and the low-level software module are  
6 unique to a specific test system.

1 7. A method for communication with a test system for integrated circuits, in which  
2 commands of a high-level program are processed, and a low-level program produces test signals  
3 that are transmitted to the integrated circuit to be tested, and in which reaction signals from the  
4 integrated circuit are transmitted by the low-level program as reactions to the high-level

5 program, characterized in that an autonomous interface program, which is specific for the test  
6 system, is provided such that one or more high-level codes are converted to one or more low-  
7 level codes that correspond to the functionality of the high-level code, and one or more low-level  
8 codes are converted to one or more high-level codes which correspond to the functionality of the  
9 low-level code, and in that the high-level program is linked to the low-level program exclusively  
10 via the interface program and the low-level program is linked to the high-level program  
11 exclusively via the interface program.

1 8. The method according to claim 7 wherein the high-level program has a supply of high-  
2 level codes that are independent of the test system.

1 9. In a test system for testing an integrated circuit device, a software program that receives  
2 instructions from a user and issues commands to a test system for testing the integrated circuit  
3 device in accordance with the user instructions, the test system including one or more pieces of  
4 test equipment, the software program including:

5 a high-level program including:

6 computer program code for receiving a user instruction from the user; and

7 computer program code for generating a generic command based upon the user  
8 instruction, the generic command being independent of the test system that is being used to test  
9 the integrated circuit device;

10 a low-level program including:

11 computer program code for interfacing with the test system by providing test

12 commands to the test system and receiving test results from the test system;

13 wherein the low-level program is unique for each piece of test equipment in the

14 test system;

15 an interface program including:

16 computer program code for translating the generic command from the high-level

17 program into a test system specific command;

18 computer program code for providing the test system specific command to the

19 low-level program;

20 computer program code for receiving a test result from the low-level program, the

21 test result being indicative of a result of a test performed on the integrated circuit device based

22 on the generic command; and

23 computer program code for providing the test result to the high-level program.

1 10. The software program of claim 9 wherein the high-level program is usable with a  
2 plurality of different test systems without modification.

1 11. The software program of claim 10 wherein all communications between the high-level  
2 program and the low-level program are routed through the interface program.

1 12. The software program of claim 10 wherein interface is unique to a specific test system.

1 13. The software program of claim 12 wherein all communications between the high-level  
2 program and the low-level program are routed through the interface program.

1 14. The software program of claim 9 wherein interface is unique to a specific test system.

1 15. The software program of claim 9 wherein all communications between the high-level  
2 program and the low-level program are routed through the interface program.

1    16.    The software program of claim 9 wherein the interface further includes computer  
2    program code for converting one or more low-level codes from the low-level program to one or  
3    more high-level codes that correspond to the functionality of the one or more low-level codes.

1    17.    The software program of claim 16 wherein the interface further includes computer  
2    program code for converting one or more high-level codes from the high-level program to one or  
3    more low-level codes that correspond to the functionality of the one or more high-level codes.